



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,173	10/12/2001	Donald Remboski	29248/AP01948	2896
4743	7590	11/10/2004	EXAMINER	
MARSHALL, GERSTEIN & BORUN LLP 6300 SEARS TOWER 233 S. WACKER DRIVE CHICAGO, IL 60606			TSAI, CAROL S W	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,173

Applicant(s)

REMBOSKI ET AL.

Examiner

Carol S Tsai

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-38, 41, 42 and 44 is/are allowed.
- 6) ☒ Claim(s) 1-30, 39, 40 and 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-11, 13-18, 20-22, 29, 30, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,469,079 to Bouchard et al. in view of U. S. Patent No. 4,240,071 to Ochiai.

With respect to claims 1, 8, 9, 39, and 40, Bouchard et al. disclose a method of assessing vehicle operator performance, the method comprising the steps of: receiving vehicle operating data from the vehicle relating to the vehicle operating condition; monitoring an interior portion of the vehicle and receiving operator activity data from the interior portion of the vehicle relating to activities of the operator within the interior portion; receiving vehicle environment data from the environment external to the vehicle; monitoring the vehicle operator and receiving operator condition data relating to a condition of the vehicle operator (see col. 8, lines 7-17 and col. 9, line 21 to col. 10, line 53); and determining an operator assessment value, wherein the operator assessment value is based upon the vehicle operating data, the operator activity data, the environment data and the operator condition data and is indicative of vehicle operator

Art Unit: 2857

performance (see Abstract, lines 1-14; col. 10, lines 18-53; and col. 31, line 39 to col. 32, line 11).

Bouchard et al. do not disclose determining an operator cognitive load.

Ochiai teaches determining an operator cognitive load (see Abstract, lines 9-20 and col. 3, lines 19-23).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al.'s method to include determining an operator cognitive load, as taught by Ochiai, in order to indicate the driver is qualified to operate the vehicle (see Abstract, line 19-20).

As to claims 2-6, Bouchard et al. also disclose receiving data relating to at least one of: vehicle speed and vehicle (see col. 28, lines 44-52 and col. 30, lines 29-58).

As to claim 7, Bouchard et al. also disclose receiving data relating to an operating parameter of the vehicle (see col. 29, lines 19-25).

As to claims 10 and 13, Bouchard et al. also disclose telematics controls/communication controls (see col. 9, lines 6-21).

As to claim 11, Bouchard et al. also disclose occupant comfort controls (see col. 9, lines 39-50).

As to claims 14-17, Bouchard et al. do not expressly disclose a physical condition of the operator comprising fatigue/intoxication.

It is, however, considered inherent that Bouchard et al. determine a physical condition of

Art Unit: 2857

the operator comprising fatigue/intoxication (see col. 31, lines 11-23), because such determination is known to be a necessary step in order to make accident reconstruction more reliable and less expensive.

As to claim 18, Bouchard et al. also disclose monitoring a distraction condition of the operator (see col. 31, lines 11-15).

As to claim 20, Bouchard et al. also disclose receiving road condition data (see col. 30, lines 44-46).

As to claim 21, Bouchard et al. also disclose receiving road lane following data (see col. 30, lines 46-52).

As to claim 22, Bouchard et al. also disclose receiving headway data (see col. 28, lines 44-52).

As to claim 29, Bouchard et al. also disclose determining the existence of a problem condition associated with the performance of the operator (see col. 31, lines 11-23).

As to claim 30, Bouchard et al. also disclose the operator assessment value being determined on a periodic basic vehicle operation (see col. 9, lines 62-65).

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of Ochiai as applied to claims 1 and 8 above, and further in view of U. S. Patent No. 6,370,454 to Moore.

As noted above, Bouchard et al. in combination with Ochiai teach all the features of the claimed invention, but do not disclose infotainment controls.

Moore teaches infotainment controls (see col. 4, lines 64-66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al. in combination with Ochiai's method to include infotainment controls, as taught by Moore, in order that information located in various remote servers relating to the performance and service of the vehicle may be downloaded across the network and easily used in servicing and maintaining the vehicle (see Moore Abstract, lines 8-11).

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of Ochiai as applied to claims 1 and 8 above, and further in view of U. S. Publication 2002/0103622 to Burge.

As noted above, Bouchard et al. in combination with Ochiai teach all the features of the claimed invention, but do not disclose monitoring vehicle passengers.

Burge teaches monitoring vehicle passengers (passengers 1180 shown on Fig. 15).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al. in combination with Ochiai's method to include monitoring vehicle passengers, as taught by Burge, in order that information of passengers can be provided for further analysis.

6. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of Ochiai as applied to claim 1 above, and further in view of U. S. Publication of 2003/0014176 to Levine.

As noted above, with respect to claims 23 and 24, Bouchard et al. in combination with

Art Unit: 2857

Ochiai teach all the features of the claimed invention, but do not disclose receiving traffic control data.

Levine teaches receiving traffic control data (see paragraphs 0042 and 0043).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al. in combination with Ochiai's method to include receiving traffic control data, as taught by Levine, in order to relieve or minimize traffic congestion and slowdown (see Levine, Paragraph 0043, lines 13-14).

7. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of Ochiai as applied to claim 1 above, and further in view of U. S. Patent No. 5,390,117 to Graf et al.

As noted above, with respect to claims 25-28, Bouchard et al. in combination with Ochiai disclose the vehicle operating data, the operator activity data, the environment data, the operator cognitive load, and the operator condition data.

Bouchard et al. in combination with Ochiai do not disclose inferring performance of the operator from the vehicle operating data, the operator activity data, the environment data and the operator condition data.

Graf et al. teach inferring performance of the operator from the vehicle operating data, the operator activity data, the environment data and the operator condition data (see col. 5, line 16 to col. 7, line 63).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al. in view of Ochiai's method to include inferring

Art Unit: 2857

performance of the operator from the vehicle operating data, the operator activity data, the environment data and the operator condition data, as taught by Graf et al., in order to evaluate various signals characterizing driving states of the motor vehicle (see Graf et al. col. 1, lines 63-64).

8. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bouchard et al. in view of Ochiai as applied to claim 1 above, and further in view of U. S. Patent No. 6,449,572 to Kurz et al.

As noted above, Bouchard et al. in combination with Ochiai teach all the features of the claimed invention, but do not disclose comparing monitored behavior to known good driving behavior.

Kurz et al. teach comparing monitored behavior to known good driving behavior (see col. 3, line 55 to col. 4, line 9).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bouchard et al. in view of Ochiai's method to include comparing monitored behavior to known good driving behavior, as taught by Kurz et al., in order to classify vehicle driver's performance.

Response to Arguments

9. Applicant's arguments with respect to claims 1-30, 39, 40, and 44 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

10. Claims 31-38, 41, 42, and 44 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter:

U. S. Patent No. 5,469,079 to Bouchard et al. in view of U. S. Patent No. 6,272,411 to Corrado et al. are references closest to the claimed invention. Bouchard et al. in combination with Ochiai disclose an apparatus for assessing vehicle operator performance, the apparatus comprising: a sensor fusion module, the sensor fusion module being coupled to a vehicle condition sensor, a vehicle exterior sensor, an operator condition sensor and an operator activity sensor respectively providing to the sensor fusion module vehicle condition data, vehicle environment data, operator condition data and operator activity data, the sensor fusion module operable to provide a master condition list based on the data received by the sensor fusion module; and a response selector coupled to the sensor fusion module, the response selector being operable to determine a current operating condition based upon the master condition list and to assess an operator action in response to the current operating condition to provide an operator performance assessment value based upon the master condition list and the operator action. However, Bouchard et al. in combination with Ochiai do not teach a response selector coupled to the sensor fusion module, the response selector being operable to determine an operator cognitive load based upon the master condition list and a current operating condition based upon the master condition list, and to assess an operator action in response to the current operating condition and operator cognitive load to provide an operator performance assessment value based upon the master condition list and the operator action; and including all of the other limitations in the respective independent claims.

Art Unit: 2857

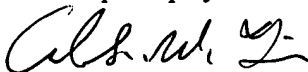
Response to Arguments

12. Applicant's arguments with respect to claims 1-30, 39, 40, and 43 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for TC 2800 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (571) 272-1585 or (571) 272-2800.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.



Carol S. W. Tsai
Patent Examiner
Art Unit 2857

10/28/04